



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,376	12/19/2001	Lewis Illingworth	120-105	5891

7590

12/18/2002

Ward & Olivo  
Suite 300  
382 Springfield Avenue  
Summit, NJ 07901

EXAMINER

HOPKINS, ROBERT A

ART UNIT

PAPER NUMBER

1724

5

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/025,376

Applicant(s)

ILLINGWORTH, LEWIS

Examiner

Robert A Hopkins

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-47 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Oath/Declaration***

This application presents a claim for subject matter not originally claimed or embraced in the statement of the invention. A supplemental oath or declaration is required under 37 CFR 1.67. The new oath or declaration must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02. Examiner notes that the current declaration is the declaration from serial number 09/728,602, titled "Lifting Platform", and therefore is not the correct declaration for the current application.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the propellers in claims 10, 28, and 46 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Priority***

This application is claiming the benefit of a prior filed nonprovisional application

Art Unit: 1724

under 35 U.S.C. 120, 121, or 365(c). Copendency between the current application and the prior application is required. Examiner notes that application 09/835,084, filed 4/13/2001 is a CIP of application 09/728,602, filed 12/01/2000, and not a CIP of 09/829,416, filed 4/9/01. Proof of such a continuity structure is found in US patent application publication US 2002/0020035. Therefore the statement of cross reference to other applications should be amended to delete reference to serial number 09/829,416, filed 4/9/01.

### ***Claim Objections***

Claims 5,6,11,12,23,24,29,30 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 5 and 23 recites "wherein said fluid delivery means is powered by compressed gas". Claims 5 and 23 fails to further limit the structure of claims 1 and 19 respectively. Claims 5 and 23 are merely a statement of how the fluid delivery means is powered.

Claim 6 and 24 recites "wherein said fluid delivery means is powered by a flowing fluid". Claims 6 and 24 fails to further limit the structure of claims 1 and 19. Claims 6 and 24 are merely a statement of how the fluid delivery means is powered.

Claims 11 and 29 recite "wherein the pressure in said collector is greater than the pressure in said chamber". Claims 11 and 29 fails to further limit the structure of claims

Art Unit: 1724

1 and 19 respectively. Claims 11 and 29 is merely a statement of the difference in pressure between the collector and chamber.

Claims 12 and 30 recite "that is capable of separating large objects, such as nails, screws, nuts, dirt, and sand, as well as small particles, such as dust and other particulate matter". Claims 12 and 30 fails to further limit the structure of claims 1 and 19 respectively. Claims 12 and 30 merely recite the types of objects which the collector is capable of separating.

***Claim Rejections - 35 USC § 112***

Claims 2-4, 12-15, 19-35, 37, 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 19 recite "wherein said fluid delivery means comprises a motor". Examiner notes that the "fluid delivery means" is the impeller in figure 16, and not the motor. The motor provides a mechanism for providing power to the fluid delivery means, but is not the fluid delivery means itself. Claims 3 and 4 recite similar limitations to claim 2 and hence are also rejected as being indefinite. Claims 21 and 22 recite similar limitations to claim 2 and hence are also rejected as being indefinite. Correction is requested.

Regarding claims 12 and 30, the phrase "such as" in lines 2 and 3 renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Art Unit: 1724

Claims 13-15 recite "further comprising an inner tube and an outer tube, said inner tube and outer tube forming an annular duct". Examiner notes that there is no structural connectivity between the inner tube, outer tube, and the structure recited in claim 1. Correction is requested.

Claim 19 line 6 recites "said centrifugal separation chamber". There is a lack of antecedent basis for "said centrifugal separation chamber" in previous claim limitations. Correction is requested. Claims 20-35 depend on claim 19 and hence are also rejected.

Claim 37 recites "wherein said fluid flow is delivered from an inner tube". Examiner notes that there is no structural connectivity between the inner tube and the structure recited in method claim 36. Correction is requested.

Claim 39 recites "said centrifugal separation chamber". There is a lack of antecedent basis for "said centrifugal separation chamber" in previous claim limitations. Correction is requested.

Claim 40 recites "said centrifugal separation chamber". There is a lack of antecedent basis for "said centrifugal separation chamber" in previous claim limitations. Correction is requested.

Claim 41 recites "further comprising the step of providing concentric inner and outer tubes for delivering and expelling said fluid, said annular duct with a torodial vortex nozzle. Examiner notes that there is no structural connectivity between the inner tube, outer tube, and the structure recited in method claim 36. Correction is requested.

Claim 41 recites "said annular duct". There is a lack of antecedent basis for "said annular duct" in previous claim limitations. Correction is requested.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13, 17, 18, 42-44 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Crane et al(2192515).

Crane et al teaches a centrifugal separation system comprising fluid delivery means(15) to provide fluid flow, a separation chamber(35) to separate unwanted material from the fluid, and a collector(32) to collect the separated material. Crane et al further teaches wherein the separation chamber is cylindrical. Crane et al further teaches wherein the fluid delivery means comprises a centrifugal impeller assembly connected to a motor. Crane et al further teaches an inner tube(18) and an outer tube(25), the inner tube and outer tube forming an annular duct(28). Crane et al further teaches wherein the collector further comprises a removable door(38) for emptying the contents of the collector.

Claims 36-40, 45-47 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Crane et al(2192515).

Crane et al teaches a method of centrifugally separating matter from a fluid flow comprising the steps of delivering a fluid flow to a separation chamber(35), and allowing

Art Unit: 1724

the matter to carry into a collector(32). Crane et al further teaches wherein the fluid flow is delivered from an inner tube(18). Crane et al further teaches wherein the fluid flow exits from the separation chamber via an annular duct(28) created between an inner tube(18), the inner tube being for delivering the fluid flow, and an outer tube(25), the inner tube and outer tube being coaxial. Crane et al further comprises creating a higher pressure in the collector than in the centrifugal separation chamber such that circular fluid flow is maintained without impeding the matter from carrying into the collector. Crane et al further teaches wherein the delivering is performed by a centrifugal impeller assembly, wherein the impeller performs the step of creating a cylindrical vortex fluid flow.

Claims 1-7,9,11,12, 16,44 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by McKnab(3174264).

McKnab teaches a centrifugal separation system comprising fluid delivery means(20) to provide fluid flow, a separation chamber(4) to separate unwanted material from the fluid, and a collector(15) to collect the separated material. McKnab further teaches wherein the separation chamber is cylindrical. McKnab further teaches wherein the fluid delivery means comprises a centrifugal pump assembly connected to a motor. McKnab further teaches wherein the collector is removable for emptying the contents of the collector.

Claims 36,47 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by McKnab(3174264).



Art Unit: 1724

McKnab teaches a method of centrifugally separating matter from a fluid comprising the steps of delivering a fluid flow to a separation chamber; and allowing the matter to carry into a collector. McKnab further teaches wherein delivering is performed by a centrifugal pump.

Claims 36,39 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bauer(3426513).

Bauer teaches a method of centrifugally separating matter from a fluid flow comprising the steps of delivering a fluid flow to a separation chamber(13), and allowing the matter to carry into a collector(20). Bauer further comprises creating a higher pressure in the collector than in the centrifugal separation chamber such that circular fluid flow is maintained without impeding the matter from carrying into the collector.

***Allowable Subject Matter***

Claim 19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claim 19 recites "an opening in the wall of said centrifugal separation chamber, said opening leading into said dust collector". Crane et al discloses a wall(11), however the wall does not include an opening leading to the dust collector, wherein the dust collector(32) is located below the separation chamber. Bauer discloses an opening in a wall of the centrifugal separation chamber, the opening leading into the dust collector, however Bauer does not disclose an outer tube coupled to the centrifugal separation chamber, and an inner tube located inside the outer tube.

Art Unit: 1724

Claims 14,15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 14 recites flow straightening vanes provided with said annular duct to straighten said fluid flow". Crane et al fails to disclose flow straightening vanes provided with the annular duct. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide flow straightening vanes because Crane et al does not suggest such a modification.

Claim 15 recites " an ending in a torodial vortex nozzle". Crane et al discloses an annular duct, however the annular dust does not end in torodial vortex nozzle. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to include a torodial vortex nozzle in Crane et al because Crane et al does not suggest such a modification.

### ***Double Patenting***

Applicant is advised that should claims 8-10 be found allowable, claims 42-44 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Examiner notes that further reciting functional limitations of the

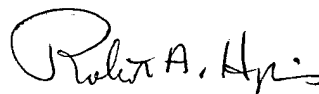
Art Unit: 1724

impeller, propeller, and centrifugal pump, in claims 42-44 does not further structurally differentiate claims 42-44 from claims 8-10.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A Hopkins whose telephone number is 703-308-3913. The examiner can normally be reached on Monday-Friday 9:00am-3:00pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Simmons can be reached on 703-308-1972. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9572 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Robert A Hopkins  
Primary Examiner  
Art Unit 1724

rah  
December 12, 2002